

CLAIMS

1. A self-contained alarm device for monitoring the supply status of a monitored electrical appliance for connection in the supply line from the network to the appliance
5 characterised in that it has no internal power source or battery and is operable to provide an audible and/or visible alarm signal if the electrical power to the appliance is interrupted after connection.
2. A self-contained alarm device according to Claim 1, characterised in that it is
10 formed as an adaptor with pins for insertion into a socket and having socket connections for receiving the pins of a connector plug of the monitored appliance.
3. A self-contained alarm device according to Claim 1 characterised in that it is incorporated into a plug for connection to a mains supply socket.
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4. A self-contained alarm device according to any of Claims 1 to 3 characterised in that there are provided means for detecting an open-circuit condition of a monitored supply line.
- 20 5. A self-contained alarm device according to any of Claims 1 to 4, characterised in that it includes a delay timer for delaying operation of an output device triggering the alarm indication for a pre-determined delay period after detection thereof.
6. A self-contained alarm device according to Claim 5, characterised in that said

output device is a relay.

7. A self-contained alarm device according to any preceding claim, characterised in that it has a capacitor which is maintained charged when the supply is present and
5 which is arranged to discharge when the supply is removed.

8. A self-contained alarm device according to any preceding claim, characterised in that the open circuit condition is detected by sensing a reversal in the polarity of a voltage differential across a resistive element.

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9. A self-contained alarm device according to Claim 7 or Claim 8, characterised in that the said capacitor provides the power for an audible and/or visible alarm indicator upon the occurrence of an alarm condition.

- 15 10. A self-contained alarm device according to Claim 9 characterised in that the alarm indicator device is supplied intermittently when a power failure is detected, whereby to give the alarm indication.

11. A self-contained alarm device according to Claim 10 characterised in that the
20 mark-to-space ratio of the alarm signal is determined by the ratio of the values of two series-connected resistors in the input circuit of a timer.

12. A self-contained alarm device according to any of Claims 7 to 11 characterised in that a secondary output from the power supply is applied to the timer circuit to

maintain it in a quiescent condition as long as the power is supplied to the circuit.

13. An alarm device for connection to the supply line from the network to the appliance, characterised in that it is adapted for inoperation into an electrical
5 appliance, in that it has no internal power source or battery, and in that it is operable to monitor the supply status of the supply line and to provide an audible and/or visible alarm signal if the electrical power to the appliance is interrupted after connection.

14. An alarm device according to Claim 13, characterised in that there are
10 provided means for detecting an open-circuit condition of a monitored supply line.

15. An alarm device according to any of Claims 13 or Claim 14, characterised in that it includes, a delay timer for delaying operation of an output device triggering the alarm indication for a pre-determined delay period after detection thereof.

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16. An alarm device according to Claim 15, characterised in that the delay timer is adjustable.

17. An alarm device according to Claim 15, or 16, characterised in that the said
20 output device is a relay.

18. An alarm device according to any Claims 13 to 17, characterised in that it has a capacitor which is maintained charged when the supply is present and which is arranged to discharge when the supply is removed.

19. An alarm device according to any of Claims 13 to 18, characterised in that the open circuit condition is detected by sensing a reversal in the polarity of a voltage differential across a resistance element.

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20. An alarm device according to Claim 18 or Claim 19, characterised in that the said capacitor provides the power for an audible and/or visible alarm indicator upon the occurrence of an alarm condition.

10 21. An alarm device according to Claim 20, characterised in that in operation when a power failure is detected the alarm indicator device is supplied intermittently to give the alarm indication.

22. An alarm device according to Claim 21 characterised in that the mark-to-space
15 ratio of the alarm signal is determined by the ratio of the values of two series-connected resistors in the input circuit of a timer.

23. An alarm device according to any of Claims 18 to 22, characterised in that a secondary output from the power supply is applied to the timer circuit to maintain it in
20 a quiescent condition as long as the power is supplied to the circuit.

24. An electrical appliance incorporating an alarm device as claimed in any preceding claim.